

REMARKS

Claims 1-73 are pending in this application. Claims 1-31, 49, and 65 have been rejected under 35 U.S.C. § 112, second paragraph. Claims 1-70 have been rejected under 35 U.S.C. § 101. Claims 1-3, 14, 15, 16, and 21 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,991,399 (Graunke). Claims 4, 5, 6, 17-20, 24, 49, 58-61, and 65 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Graunke in view of U.S. Patent No. 6,715,079 (Maytal). Claims 7-10, 22, 23, 30-34, 36, 37, 43-48, 50, 51, 53, 56, 57, 62, and 66-69 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Graunke in view of U.S. Patent No. 5,892,899 (Aucsmith). Claims 12, 13, 28, 29, 35, 41, 42, 54, and 64 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Graunke in view of U.S. Patent No. 6,553,494 (Glass). Claims 11, 25, 38, 52, 63, and 71-73 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Graunke in view of U.S. Patent No. 5,912,972 (Barton). Claims 26, 27, 39, 40, 55, and 70 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Graunke in view of Aucsmith and in view of U.S. Patent No. 5,682,428 (Johnson).

For the reasons set forth below, applicants respectfully traverse the grounds for rejection.

Section 112, second paragraph rejections

In response to the rejection of claims 1 and 22, this rejection is based on the Examiner's assertion that it is unclear how a program can apply a key without having access to the key. In response, applicant directs the Examiner's attention to the original application, at page 18, line 17 through page 19, line 2, and pages 47-52. The cited pages describe an example of the technique referred to by the Examiner. In view of various factors including, at least, the cited description, applicants respectfully submit that claims 1 and 22 are not indefinite.

In response to the rejection of claims 4, 24, 49, and 65: Applicant respectfully submits that the use of the term "relates" does not render these claims indefinite. The standard for assessing the definiteness of a claim is: "If one skilled in the art would understand the bounds of the claim when read in light of the specification, then the claim satisfies [section 112,

second paragraph].” *Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1375, 60 U.S.P.Q.2d 1272 (Fed. Cir. 2001) (citing *Miles Labs., Inc. v. Shandon, Inc.*, 997 F.2d 870, 875, 27 U.S.P.Q.2d 1123, 1126 (Fed. Cir. 1993)). This standard is met if “the claims at issue [are] sufficiently precise to permit a potential competitor to determine whether or not he is infringing.” *Id.* (citing *Morton Int’l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470, 28 U.S.P.Q.2d 1190, 1195 (Fed. Cir. 1993)).

Claims 4, 49, and 65 recite information that “relates” to a particular “computing device,” and claim 24 recites data that relates to “hardware associated with” a particular “computing device.” Given a particular piece of information, one of skill in the relevant art would be able to determine whether or not such piece of information relates to a particular computing device or to a particular piece of hardware. Applicants respectfully submit that the Examiner has not applied the standard set forth above, or made a showing of indefiniteness under that standard.

As to claims 2, 3, 5-21, 23, and 25-31, the Examiner has not pointed to any indefiniteness contained in these claims, and thus applicants have assumed that these claims have been found to be indefinite only due to their dependency on claims 1, 4, 22, or 24. Since claims 1, 4, 22, and 24 have been shown not to be indefinite, applicants respectfully submit that claims 2, 3, 5-21, 23, and 25-31 are also not indefinite.

Notwithstanding the Examiner’s request that applicants make “appropriate correction” of the claims, applicants respectfully submit that the foregoing remarks are fully responsive to the section 112, second paragraph rejection.

Section 101 Rejections

The Examiner asserts that claims 1-70 lack any patentable utility, and asserts that the independent claims identify “a set of actions but not a concrete product.” In response, applicants note that a “concrete product” is not the relevant standard under section 101. An invention can constitute statutory subject matter if it produces a “useful, concrete, and tangible result.” *State Street Bank & Trust v. Signature Financial Group Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999). Under this standard, the claims are clearly within section 101.

With regard to the independent claims discussed by the Examiner, claim 1 is directed to “a method of creating a computer program that uses a cryptographic algorithm to apply a cryptographic key to first data.” Creating a computer program is a useful, concrete, and tangible result. Applying a cryptographic key to data is also a useful, concrete, and tangible result. Claim 22 is directed to a method of “decrypting data with a cryptographic key”. Claim 32 is directed to a method of “performing an action on a computing device in a manner that is at least partly resistant to modification or analysis.” Claims 45 and 63 are both directed to methods of “creating a computer program that is at least partly resistant to modification or analysis.” Decrypting data, creating a computer program, and resisting modification or analysis of a computer’s actions, are all useful, concrete, and tangible results.

There is no requirement that a claim “identify” a “concrete product.” Since the section 101 rejection appears to be based on the Examiner’s assertion of this erroneous standard, applicants respectfully request that the section 101 rejection of claim 101 be reconsidered and withdrawn. Additionally, applicants note that the Examiner has not provided any explanation as to why dependent claims 2-21, 23-31, 33-44, 46-62, and 64-70 lack patentable utility. Thus, applicants request that the section 101 rejection of these claims be withdrawn as well.

Section 102 Rejections

The Examiner has rejected claims 1-3, 14, 15, 16, and 21 under section 102 as being anticipated by Graunke. Applicants note that the above-mentioned claims recite various that the Examiner appears to have overlooked in the rejection. Since the Examiner has not provided any explanation as to how these features read on Graunke, applicants submit that the Examiner has not demonstrated that Graunke teaches each and every feature of the claims, as would be required for a section 102 rejection.

In particular, applicant notes that the Examiner has not addressed the following features:

- “identifying a set of actions that are performed in the course of using [a] cryptographic algorithm to apply [a] cryptographic key” (claim 1)
- “said computer program does not require access to said cryptographic key” (claim 1)
- “encrypting or hashing a portion of the compiled instructions” (claim 16)

If the Examiner believes that the above-quoted features (or any others not addressed in the section 102 rejection) are found in Graunke, then applicants request that the Examiner set forth the portions of Graunke that teach such features in a Non-Final Office Action so that applicants can have a meaningful opportunity to respond to such new grounds for rejection.

Section 103 rejections

With regard to the section 103 rejections, applicants respectfully submit that the claims recite various features that the Examiner has overlooked. Applicants wish to focus the Examiner's attention on these features. Inasmuch as the Examiner has not considered the following features, applicants request that the Examiner either allow the claims, or, in the alternative, explain in a subsequent Office Action how these features are taught in the combined references, or how the references can be modified to yield these features. Additionally, applicants request that any Office Action that provides such a new explanation of the features be non-final so that applicants can have a meaningful opportunity to address such new grounds for rejection.

A non-exhaustive list of features that have not been addressed are as follows:

- *Claims 17 and 58 [rejected over Graunke in view of Maytal]: receiving a request for a computer program via a network and providing the computer program to the requesting device via the network.* Inasmuch as the Examiner relies on Maytal for its alleged teaching of transmitting a program over a network, it should be noted that the cited portion of Maytal mentions only the transmission of an identifier and software over the network; there is no mention in the applied portion of the sending of a request.

- *Claims 19 and 60 [rejected over Graunke in view of Maytal]: the request occurs "substantially contemporaneously" with the act of providing the software.* The applied portion of Maytal does not mention an request, and therefore does not mention any timing of such a request – much less the specific timing feature that the request occurs "substantially contemporaneously" with the act of providing the software.

- *Claims 7, 50, and 66 [rejected over Graunke in view of Aucsmith]: randomly or pseudo-randomly generating a number, wherein [a program's] set of computer-executable instructions is based on said number.* The Examiner has not addressed this feature.

- Claim 22 (see also claim 48) [rejected over Graunke in view of Aucsmith]: a first set of actions which apply said cryptographic key to said data, said first set of actions not requiring for their performance access to said cryptographic key. The Examiner has not addressed the feature of applying a cryptographic key without requiring access to the cryptographic key.

- Claims 30, 43 [rejected over Graunke in view of Aucsmith]: moving at least some of said computer-executable instructions to a randomly or pseudo-randomly selected memory location on said computing device prior to execution of the moved instructions. The Examiner has not addressed this feature.

- Claim 32 [rejected over Graunke in view of Aucsmith]: two different sets of instructions on two different computing devices, where each of the different sets of instructions performs the same sub-action. The Examiner has not addressed this feature.

- Claim 45 [rejected over Graunke in view of Aucsmith]: two different sets of instructions that perform the same action at two different locations within a program. The Examiner has not addressed this feature.

- Claim 46 [rejected over Graunke in view of Aucsmith]: the method of claim 45, where one of the sets of instructions is inline with the code that requires performance of the action. The Examiner has not addressed this feature.

- Claim 53 [rejected over Graunke in view of Aucsmith]: reorganizing two sets of instructions or a combination thereof. The Examiner has not addressed this feature.

- Claim 57 [rejected over Graunke in view of Aucsmith]: encrypting or hashing compiled instructions. The Examiner has not addressed this feature.

- Claim 12 [rejected over Graunke in view of Glass]: reorganizing at least some code in a computer program. The Examiner has not addressed this feature.

- Claims 13, 54 [rejected over Graunke in view of Glass]: delimiting a segment of a computer program, computing a hash of the delimited segment, storing the hash in the program. The Examiner has not addressed this feature.

- Claim 13 [rejected over Graunke in view of Glass]: features as described in the above point, plus storing in the program the code that computes and verifies the hash (claim 13). The Examiner has not addressed this feature.

- *Claims 11, 25, 38, 52, and 63 [rejected over Graunke in view of Barton]: detecting modification or deletion of a portion of code, and restoring the modified or deleted portion.* The applied prior art discussed the use of error correction with images. There is no discussion in Barton of the use of error correction techniques to restore modified code. The Examiner has not addressed the feature of applying such correction techniques to code.

- *Claim 71 [rejected over Graunke in view of Barton]: detecting variance of code from a reference state and restoring the code to its reference state.* The Examiner has not addressed this feature.

- Additionally, with regard to the proposed combination of Graunke with Barton, the Examiner states that this combination is desirable "because the error correction would maintain the authenticity of any data it was used with." Applicants respectfully submit that the asserted rationale does not justify the proposed combination. Error correction does not "maintain authenticity" of data. It is possible to correct errors in data that is not authentic. Thus, the Examiner has not justified the proposed combination, which provides an independent reason why the rejection of claims over Graunke in view of Barton should be withdrawn.

IDS Submissions

The Examiner has not initialed and returned pages 1 and 2 of the IDS submission dated November 20, 2000. It is requested that, in the next Office Action, the Examiner initial and return copies of the above-mentioned pages, copies of which are enclosed.

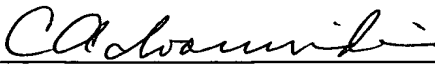
Conclusion

The pending claims are patentable either for the reasons discussed above, or at least by reason of dependency on the claims discussed above. Thus, applicants respectfully submit that this case is in condition for allowance.

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